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EXAMINER	
ROBERTS, BRIAN S	

ART UNIT	PAPER NUMBER
2419	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/583,098	BOEHNKE ET AL.	
	Examiner	Art Unit	
	BRIAN ROBERTS	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

- Claims 14-26 have been examined.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

Claims 15 and 16 are objected to because of the following informalities:

- Claim 15, line 2 "the master-slave principle" should read --a master-slave principle--.
- Claim 16 line 2 "meshed, star or hybrid star, and meshed topology" should read -- meshed, star, or hybrid star and meshed topology--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- In reference to claim 14

Claim 14 recites the limitation "the nodes being in a stand-by mode" in line 6. It is unclear "the nodes" refers to nodes of the first type, nodes of the second type, or both.

- In reference to claim 24

Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: detecting a valid identification code of the master node in a header of the received polling and/or control information.

Furthermore, claim 24 recites the limitation "the status information" in line 10. There is insufficient antecedent basis for this limitation in the claim.

- In reference to claim 26

Claim 26 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete because the claim fails to recite ANY steps for using the remote pooling and control system of claim 14. See MPEP § 2172.01.

- In reference to claims 15-23, 25

Claims 15-23 and 25 are rejected as being dependent on rejected claim 14.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 14-17, 22, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Jamieson et al. (US 2002/0034959)

- In reference to claim 14, 26

In Figure 1, Jamieson et al. teaches a control means (14) for polling data from remotely accessible nodes (SL 1-2) of a first type (group Z1) located in a network and/or remotely controlling functions executable by remotely controllable nodes (SL 3-5) of a second type (group Z2), the nodes being in a stand-by mode before and after being called by the control means. (paragraphs 0021-0026)

- In reference to claim 15

In Figure 1, Jamieson et al. further teaches at least one master node (10) including an RF transceiver (12) configured to: send a wake-up signal to at least one remote slave node (SL 1-5) of a first and/or second type for polling information detected by the slave node (SL 1-5), send control information for triggering a function to be executed by at least one remotely controllable slave node (SL 3-5) of the second type, and receive feedback information from the slave nodes (SL 1-5). (paragraphs 0021-0026)

- In reference to claim 16

In Figure 1, Jamieson et al. further teaches the network is configured in a meshed, star, or hybrid star and meshed topology. (paragraphs 0021-0026)

- In reference to claim 17

In Figure 1, Jamieson et al. further teaches a CSMA-based MAC protocol for guaranteeing collision avoidance when different nodes are trying to simultaneously transmit data. (paragraph 0023)

- In reference to claim 22

In Figure 1, Jamieson et al. teaches transmitting a wake-up and control signal for polling sensor data detected and/or data created and/or processed by a remotely accessible slave node (SL 1-2) of a first type (group Z1) located in the range of a master node (10) or any other node providing an electromagnetic field to be modulated by the slave node (SL 1-2); or remotely activating, controlling, and/or deactivating functions executable by a slave node (SL 3-5)of a second type (group Z2), the slave nodes (SL 3-5) being in a stand-by mode before and after being called by the master node (10). (paragraphs 0021-0026)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 18 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jamieson et al. (US 2002/0034959) in view of Nysen. (US 5252979)

- In reference to claim 18

Jamieson et al. teaches a system and method that covers substantially all limitations of the parent claim. In Figure 1, Jamieson et al. further teaches the remote slave node (SL 1-2) of the first type (group Z1) comprises: receiving means (20) for wirelessly receiving a wake-up signal indicating a need for transmitting a polling request message from the master node (10) to the slave node (SL 1-2), transmitting means (10)for wirelessly transmitting sensor data or requested status information to the master node upon reception of the polling request message, and processing means for processing and creating dynamic data. (paragraphs 0021-0026)

Jamieson et al. does not teach transmitting by back-scattering an RF signal obtained by modulating an electromagnetic field provided by the master node or any other node with an encoded signal representing the status information.

In Figure 1, Nysen teaches a method of backscattering wherein a station receives an electromagnetic energy from a controller, detects first information from the received energy, imparts a second information signal to the received energy and reradiates the energy back toward the controller. (column 4 line 49-58)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system and method of Jamieson et al. to include transmitting by back-scattering an RF signal obtained by modulating an electromagnetic field provided

by the master node or any other node with an encoded signal representing the status information as suggested by Nysen because it allows a slave node to conserve battery power by utilizing the energy of a received signal from the master node for transmitting information to the master node.

- In reference to claim 23

Jamieson et al. teaches a system and method that covers substantially all limitations of the parent claim. In Figure 1, Jamieson et al. further teaches the slave node (SL 1-2) of the first type performs: wirelessly receiving a wake-up signal indicating a need for transmitting a polling request message from the master node (10) to the slave node (SL 1-2), wirelessly transmitting data or requested status information to the master node (10) upon reception of the polling request message, and executing commands upon reception of a wake-up and control message. (paragraphs 0021-0026)

Jamieson et al. does not teach transmitting by back scattering an RF signal obtained by modulating an electromagnetic field provided by the master node or any other node with an encoded signal representing the status information.

In Figure 1, Nysen teaches a method of backscattering wherein a station receives an electromagnetic energy from a controller, detects first information from the received energy, imparts a second information signal to the received energy and reradiates the energy back toward the controller. (column 4 line 49-58)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system and method of Jamieson et al. to include transmitting by

back-scattering an RF signal obtained by modulating an electromagnetic field provided by the master node or any other node with an encoded signal representing the status information as suggested by Nysen because it allows a slave node to conserve battery power by utilizing the energy of a received signal from the master node for transmitting information to the master node.

2. Claims 19, 21, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jamieson et al. (US 2002/0034959) in view of Herrmann et al. (US 2003/0151513)

- In reference to claim 19

Jamieson et al. teaches a system and method that covers substantially all limitations of the parent claim. In Figure 1, Jamieson et al. further teaches the remotely controllable node (SL 3-5) of the second type (group Z2) comprises: receiving means (20) for wirelessly receiving a wake-up and remote control signal from the master node (10) or another node (SL 3-5) of the second type, transmitting means (20) for wirelessly transmitting information to the master node (10) upon reception of the wake-up and remote control signal. (paragraphs 0021-0026)

Jamieson et al. does not teach optional sensor elements for detecting operational parameters of the slave node and/or environmental data and/or remotely controllable actuator elements for executing programmable actions, processing means for executing a remotely controllable application running on the node for monitoring and gathering

sensor data detected by the sensor elements and/or controlling the actuator elements and transmitting information from the application to the master node.

In Figure 2, Herrmann et al. teaches Class 1 nodes containing optional sensor elements for detecting operational parameters of the node and/or environmental data and/or remotely controllable actuator elements for executing programmable actions, processing means for executing a remotely controllable application running on the node for monitoring and gathering sensor data detected by the sensor elements and/or controlling the actuator elements and transmitting information from the application. (paragraphs 0016-0019)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the nodes of the second type of Jamieson et al. to include optional sensor elements for detecting operational parameters of the slave node and/or environmental data and/or remotely controllable actuator elements for executing programmable actions; processing means for executing a remotely controllable application running on the node for monitoring and gathering sensor data detected by the sensor elements and/or controlling the actuator elements and transmitter means for transmitting information from the application to a master node as suggested by Herrmann et al. because it allows slave nodes to collect data and transmit the collected data to a master node.

- In reference to claim 21

Jamieson et al. teaches a system and method that covers substantially all limitations of the parent claim.

The combination of Jamieson et al. and Herrmann does not teach that the master node is connected to a bridge providing a wireless or wired communication link to at least one other master module.

In Figure 2, Herrmann et al. teaches that a cluster head (*master node*) is connected to a bridge providing a wireless or wired communication link to at least one other master module. (paragraphs 0026-0028)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system and method of Jamieson et al. to include the master node being connected to a bridge providing a wireless or wired communication link to at least one other master module as suggested by Herrmann et al. because it allows an extended communication range of a network.

- In reference to claim 24

Jamieson et al. teaches a system and method that covers substantially all limitations of the parent claim. In Figure 1, Jamieson et al. further teaches the slave node (SL 3-5) of the second type performs: wirelessly receiving digitally encoded polling and/or control information from the master node (10), detecting a valid identification code of the master node in a header of the received polling and/or control information, and wirelessly transmitting a digitally encoded version of the status information as a feedback signal to the master node (10). (paragraphs 0021-0026)

Jamieson et al. does not teach executing a remotely controllable application running on the slave node for monitoring and gathering operational parameters of the slave node and/or environmental data detected by sensor elements connected to the slave node and/or controlling actuator elements controllable by the slave node.

In Figure 2, Herrmann et al. teaches executing a remotely controllable application running on a class 1 slave node for monitoring and gathering operational parameters of the class 1 slave node and/or environmental data detected by sensor elements connected to the class 1 slave node and/or controlling actuator elements controllable by the class 1 slave node. (paragraphs 0016-0019)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the nodes of the second type of Jamieson et al. to include executing a remotely controllable application running on the slave node for monitoring and gathering operational parameters of the slave node and/or environmental data detected by sensor elements connected to the slave node and/or controlling actuator elements controllable by the slave node as suggested by Herrmann et al. because it allows slave nodes to collect data and transmit the collected data to a master node.

3. Claims 20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jamieson et al. (US 2002/0034959) in view of Herrmann et al. (US 2003/0151513), and further in view of Nysen. (US 5252979)

- In reference to claim 20

The combination of Jamieson et al. and Herrmann et al. teaches a system and method that covers substantially all limitations of the parent claim. In Figure 1, Jamieson et al. further teaches the remotely controllable node (SL 3-5) of the second type (group Z2) comprises: transmitting means (10) for wirelessly transmitting data or requested status information upon reception of a polling request message from a further node (10) when being operated in a mobile ad-hoc network having a meshed topology and communicating with the further node (10) on a peer-to-peer basis. (paragraphs 0021-0026)

The combination of Jamieson et al. and Herrmann et al. does not teach transmitting by back scattering an RF signal obtained by modulating an electromagnetic field provided by the master node or any other node with an encoded signal representing the status information to the further node.

In Figure 1, Nysen teaches a method of backscattering wherein a station receives an electromagnetic energy from a controller, detects first information from the received energy, imparts a second information signal to the received energy and reradiates the energy back toward the controller. (column 4 line 49-58)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system and method of the combination of Jamieson et al. and Herrmann et al. to include transmitting by back-scattering an RF signal obtained by modulating an electromagnetic field provided by the master node or any other node with an encoded signal representing the status information as suggested by Nysen because

it allows a slave node to conserve battery power by utilizing the energy of a received signal from the master node for transmitting information to the master node.

- In reference to claim 25

Jamieson et al. teaches a system and method that covers substantially all limitations of the parent claim. In Figure 1, Jamieson et al. further teaches the slave node (SL 3-5) of the second type performs: and while being in vicinity of a master node (10), wirelessly transmitting sensor data or requested status information upon reception of a polling request message from the master node (10). (paragraphs 0021-0026)

Jamieson et al. does not teach while not being in vicinity of a master node, wirelessly transmitting feedback information from an application running on the slave node to a further node upon reception of a wake-up and/or remote control signal from the further node.

In Figure 2, Herrmann et al. teaches a hierarchical ad-hoc network that includes while not being in vicinity of a cluster node, wirelessly transmitting information from an application running on the slave node to a further node upon reception of a wake-up and/or remote control signal from the further node. (paragraph 0061-0067)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system and method of Jamieson et al. to include while not being in vicinity of a master node, wirelessly transmitting feedback information from an application running on the slave node to a further node upon reception of a wake-up and/or remote control signal from the further node as suggested by Herrmann et al.

because it extends the operable communication range of the network so that a master node may communicate with a slave node that is out of transmission range.

The combination of Jamieson et al. and Herrmann et al. teaches a system and method that covers substantially all limitations of the parent claim.

The combination of Jamieson et al. and Herrmann et al. does not teach transmitting by back scattering an RF signal obtained by modulating an electromagnetic field provided by the master node or any other node in the network with an encoded signal representing the status information to the master node.

In Figure 1, Nysen teaches a method of backscattering wherein a station receives an electromagnetic energy from a controller, detects first information from the received energy, imparts a second information signal to the received energy and reradiates the energy back toward the controller. (column 4 line 49-58)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system and method of the combination of Jamieson et al. and Herrmann et al. to include transmitting by back-scattering an RF signal obtained by modulating an electromagnetic field provided by the master node or any other node with an encoded signal representing the status information as suggested by Nysen because it allows a slave node to conserve battery power by utilizing the energy of a received signal from the master node for transmitting information to the master node.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are:

- US 6192230
- US 6304556
- US 2002/0064134
- US 2003/0198196
- US 6735448
- US 7319867

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN ROBERTS whose telephone number is (571)272-3095. The examiner can normally be reached on M-F 10:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BSR/
02/25/2009

/Hong Cho/
Primary Examiner, Art Unit 2419